ABSTRACT OF THE DISCLOSURE

An inter-image operation apparatus has temporal subtraction means for calculating a temporal subtraction image from two or more sets of base image data, and history data recording means for recording history data concerning the calculated temporal subtraction image in a database server and concurrently attaching the same history data to the data on the temporal subtraction image. The history data may include information identifying the two or more base images, the date of calculating the temporal subtraction image, the ID number of the patient, the name of the photographed portion of the patient, the photographing angle of the patient, etc. A desired temporal subtraction image may be immediately fetched from the database server by referring to the history data attached thereto if that temporal subtraction image had already been obtained, instead of recalculating that temporal subtraction image. Thus, the diagnostic process of comparing two or more images of an identical object can be carried out efficiently.